

DOES STANDARDIZATION AFFECT CREATIVITY?

Jenifer Picket and Lindsey Tatum
Faculty Advisor Dr. Kenneth Austin



Questions

- Does the standardization movement impact the creativity of students? In what way?
- How do university students perceive their own creative abilities?
- Can creativity be taught or is creativity an innate ability?
- Is there a difference between Gifts and Talents and what are those differences?
- How do university students self-assess their gifts and talents?
- Is giftedness or talent related to creativity?
- Does the need to be creative impact frustration level?
- Does a student's major affect their outlook on creativity?

Research Methods

We passed out surveys to ask students on our campus regarding their beliefs about creativity and standards. Based on those surveys we have decided that there is no black and white answer as to how standards affect students' creativity. Our data was gathered with 265 surveys from the Stephen F. Austin State University (SFASU) student and faculty population. Therefore, the following data is only applicable to institutions of higher education in the broadest sense and the SFASU population in the most specific sense. In addition, while an extensive number of surveys were gathered for the time allotted, 265 surveys may not be a large enough sample to yield statistically significant results. In addition there were some questions left unanswered accounting for the results that do not equal 100%. The following were the questions asked, the results, and our interpretation of those results.

We also gathered background information from experts in the fields of education, standardization, and creativity.

Further Research

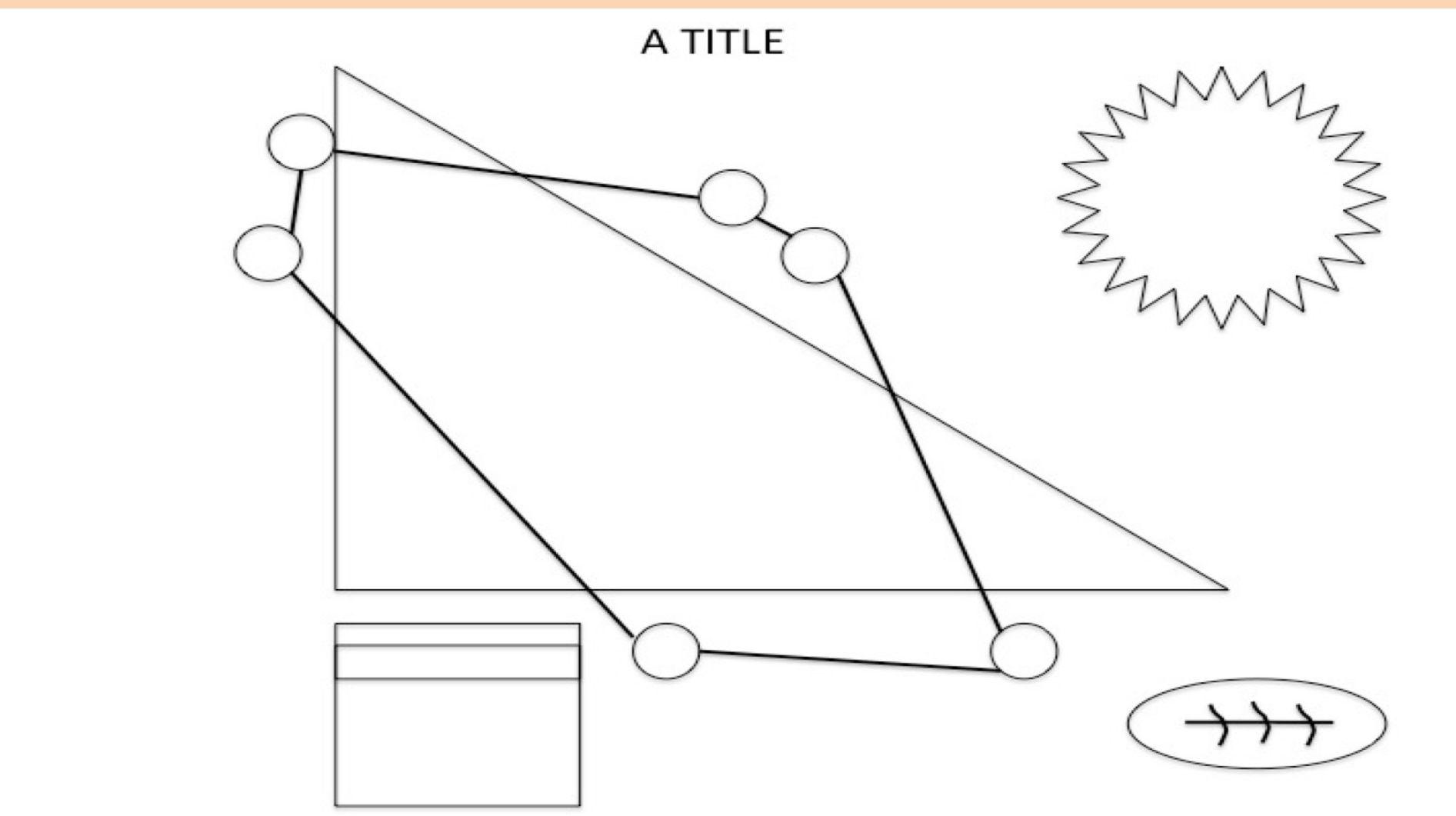
The following are questions that have emerged from this research. We feel these questions are important to develop a deeper understanding of how standardization and creativity are related. In addition, further research is needed in how academic backgrounds effect creative outlooks.

- Are these higher education students/ professors comparing themselves to each other from within the same narrow population or are they taking into consideration the general population which includes non-college educated individuals?
- Are the low rankings of Science and English possibly due to the way academic subjects are viewed and taught in comparison to artistic subjects?
- Is encouragement given in a different manner in academic subjects than artistic subjects?
- Do the views regarding whether creativity can be taught correlate to the views regarding whether creativity has been restricted to meet preset standards?
- In what ways can educators meet imposed standards without limiting the education of their students?
- Why do students report lower frustration levels when supplied with standards for assignments than when asked to be creative while meeting preset standards?
- Why does the science community seem to have such a pessimistic view of creativity?

Activity

The following activity was used to demonstrate that while standards may inhibit creativity, they can also be used appropriately and encourage creativity. Follow these directions to the best of your ability.

- Get a blank sheet of paper and something to write with
- draw a large triangle
- draw 2 small circles on each side of the triangle
- draw a square under the triangle
- draw a rectangle inside the square
- connect the circles with a line
- draw a sun in the corner
- draw a ball
- write a title at the top of your paper.



Does your picture look the same as ours? We gave you the same exact standards that we used. So how is it that the pictures do not look exactly the same? What if we said "If it does not look precisely like our picture, it is wrong"? We told you specifically what we were looking for in this artwork. Is this proof that creativity can not be limited by standards? We believe so.

Findings

Do You Think Your Major Requires You To Be Creative?

Even though the majority of the population believed they were required to be creative in their individual major, there was a surprisingly high number (18%) who believed their major does not require creativity. 30% of Science majors and 18% of English majors answered "no". If our up-and-coming doctors and writers do not see a need for creativity in their profession, there is a large problem, either in the education system or among the students themselves. 8% of professors also answered "no". This indicates that a significant portion of higher level educators do not believe (and perhaps do not encourage) creativity.

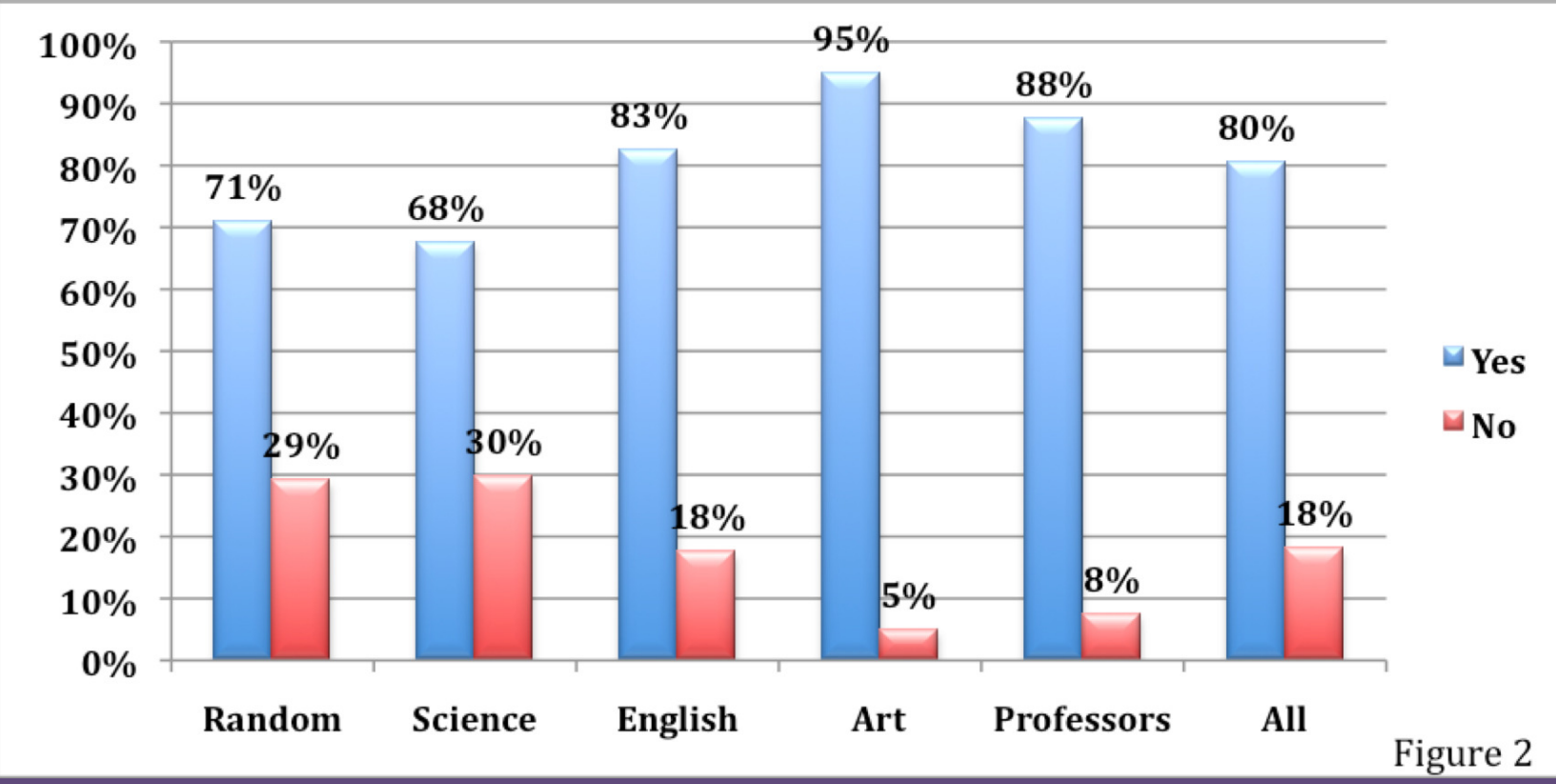


Figure 2

How Creative Do You Feel You Are?

Because the overall average of this scale is 3.0, each segregated population (as well as the combined populations) indicated a sense of creativity well above average. However, with all of the averages being between a 3.52 and 4.12, this is quite a bit lower than the researches had expected from the population of an institution of higher learning. By definition, this population should be higher performing than the diverse general population. As expected per the previous question, Science students believed themselves to be significantly less creative than those of other majors. After looking at the majors of the random sample, many of those students were also science majors, which may have been the cause for such a low score in that category.

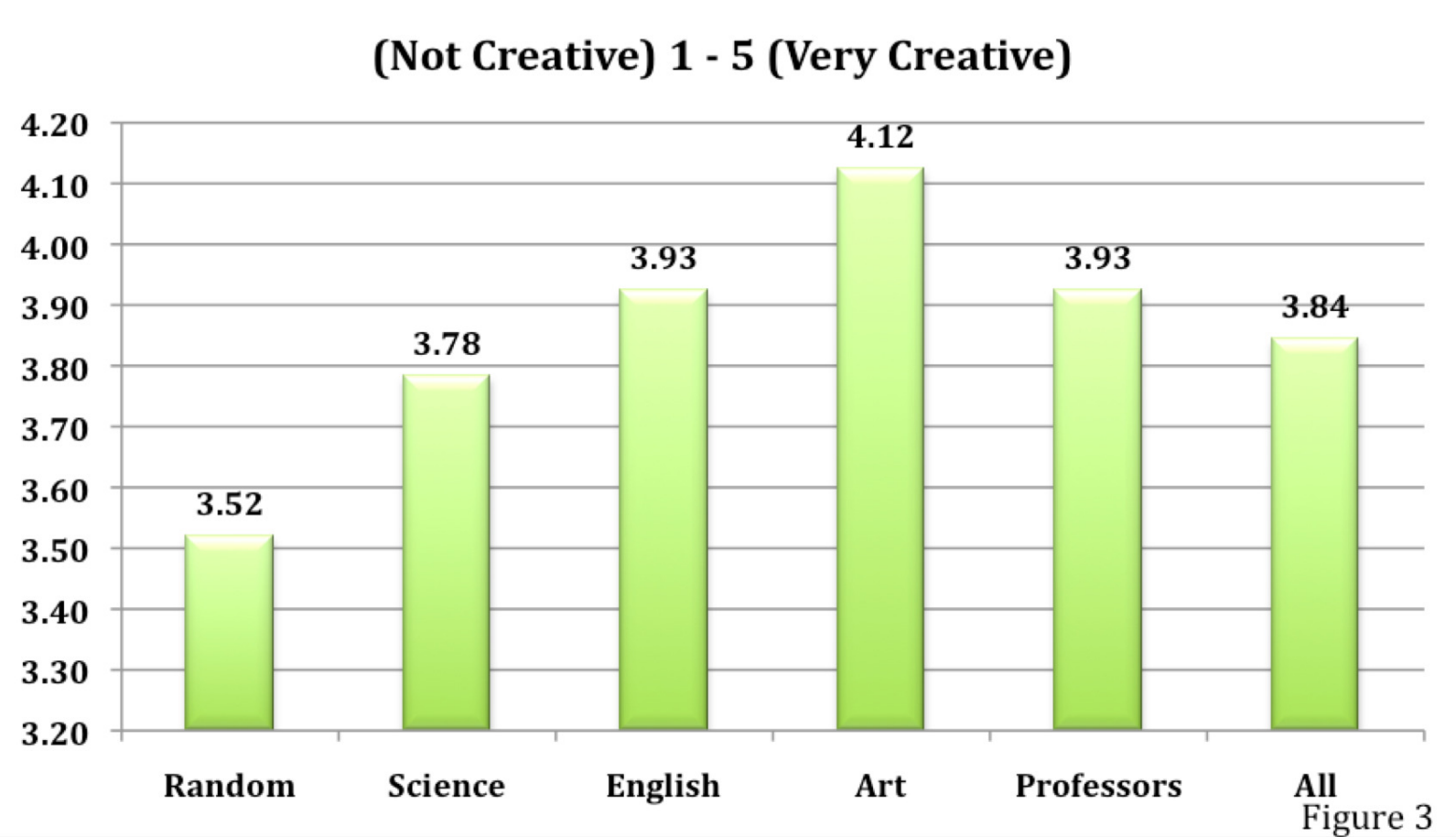


Figure 3

How Talented Do You Feel You Are?

Every subject group rated themselves as less talented than gifted. With this question though, English ranked themselves significantly lower than other content areas. Note that Science is still scoring lower than the overall average. We are seeing a continuous trend of low scoring in the self-assessments of Science majors. We are, of course, comparing Science and English to Art. We also gathered data about what skills fall under the designation of "talent." The most common answers were along the lines of art and sports. It is not surprising that Art is on this short list since art majors identified themselves as having more talent.

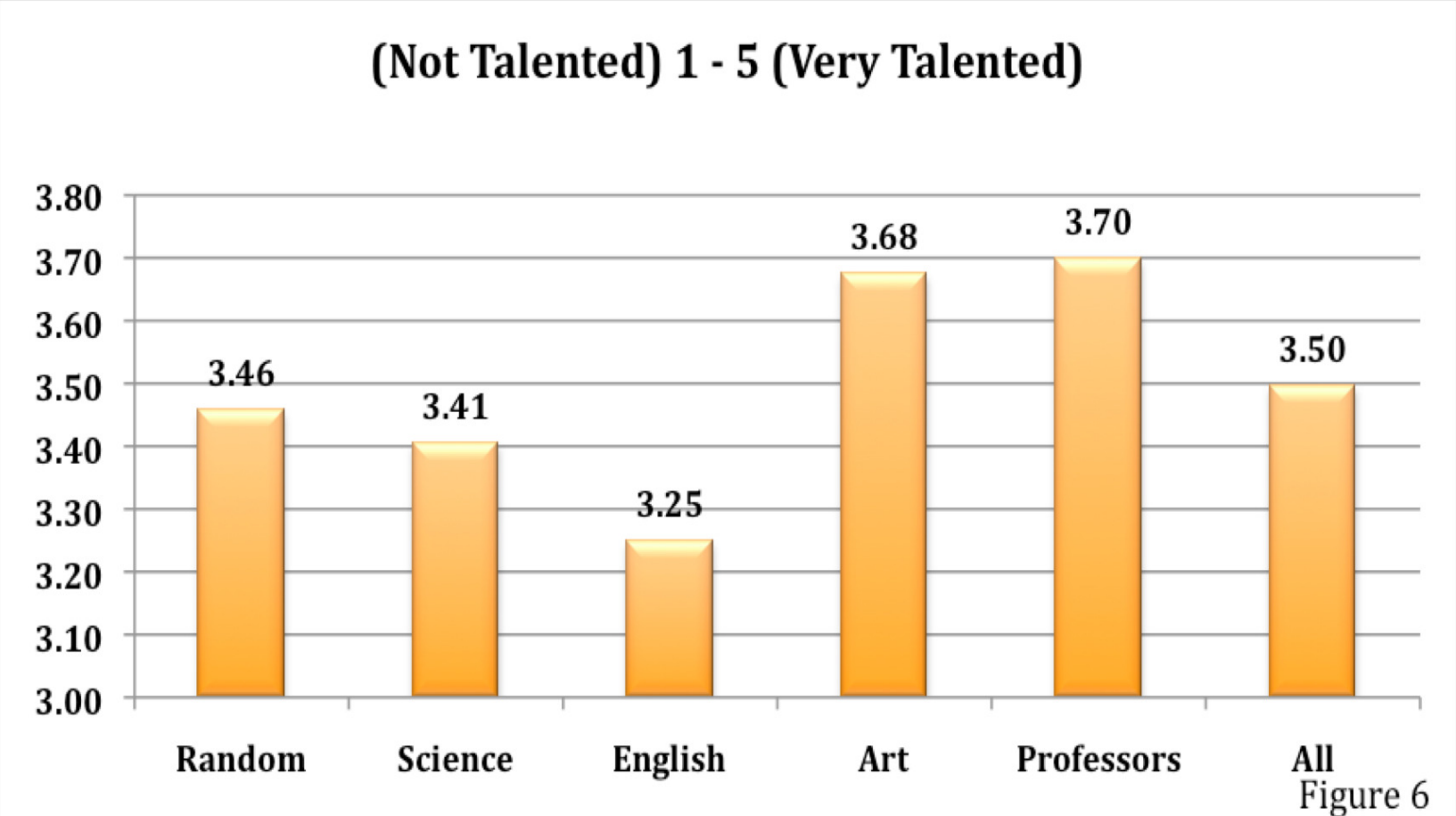


Figure 6

How Gifted Do You Feel You Are?

Because all averages are around within a 3.5 to 3.8 range, this information seems to be pretty accurate. However, again, these numbers seem to be pretty low for the population of an institution of higher learning. Perhaps the changing definition of gifted makes it hard for students not labeled as "gifted" in the K-12 system to identify themselves as gifted regardless of actual giftedness. Science is again very low scoring, but surprisingly, so is English. Included in this portion of the survey was a request to identify specific areas of giftedness. The overall consensus was in concrete school subjects, such as science, math, and analytical thinking, as well in social skills.

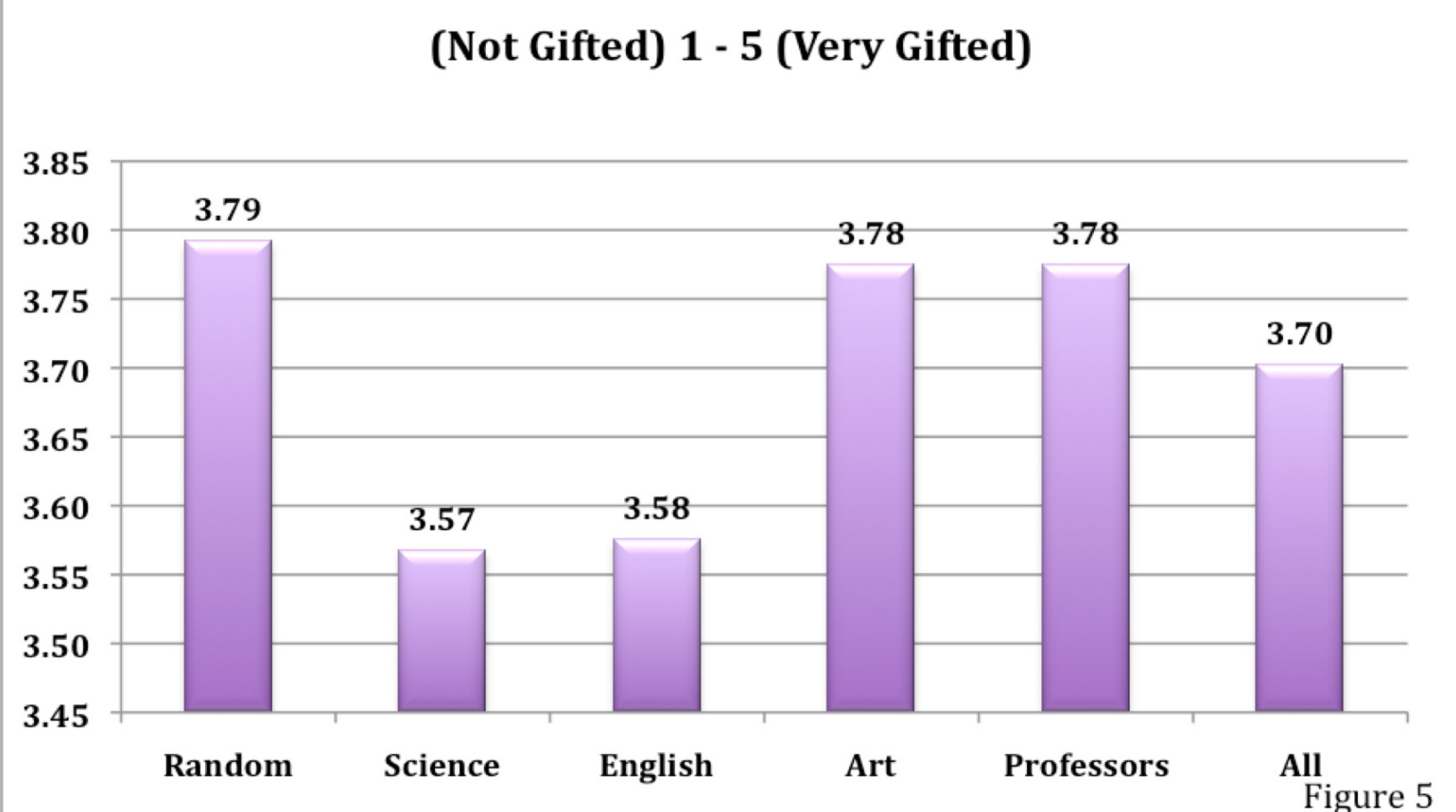


Figure 5

Is Giftedness/ Talent Related To Creativity?

Our data indicates a strong correlation between G/T and creativity. In fact 70% of those surveyed on the SFASU campus were in agreement about the existence of a correlation. Interestingly, the creativity self-evaluations were significantly higher than the giftedness and talent self-evaluations. Again, Science and English produce some questionable results. Instead of agreeing with the popular average of 70%, Science and English have less definitive answers.

Has Your Creativity Been Restricted In An Effort To Meet Preset Standards?

The overall average of 59% versus 41% does not seem statistically significant considering the number of surveys collected. Note that the random sample has a different result than the overall average, and Science is very indecisive. Remember that these are the same two categories whose opinions altered the Overall results in the question regarding whether creativity can be taught. There were some great responses that supported the negative opinion: "I am able to conform to standards by thinking outside the box."

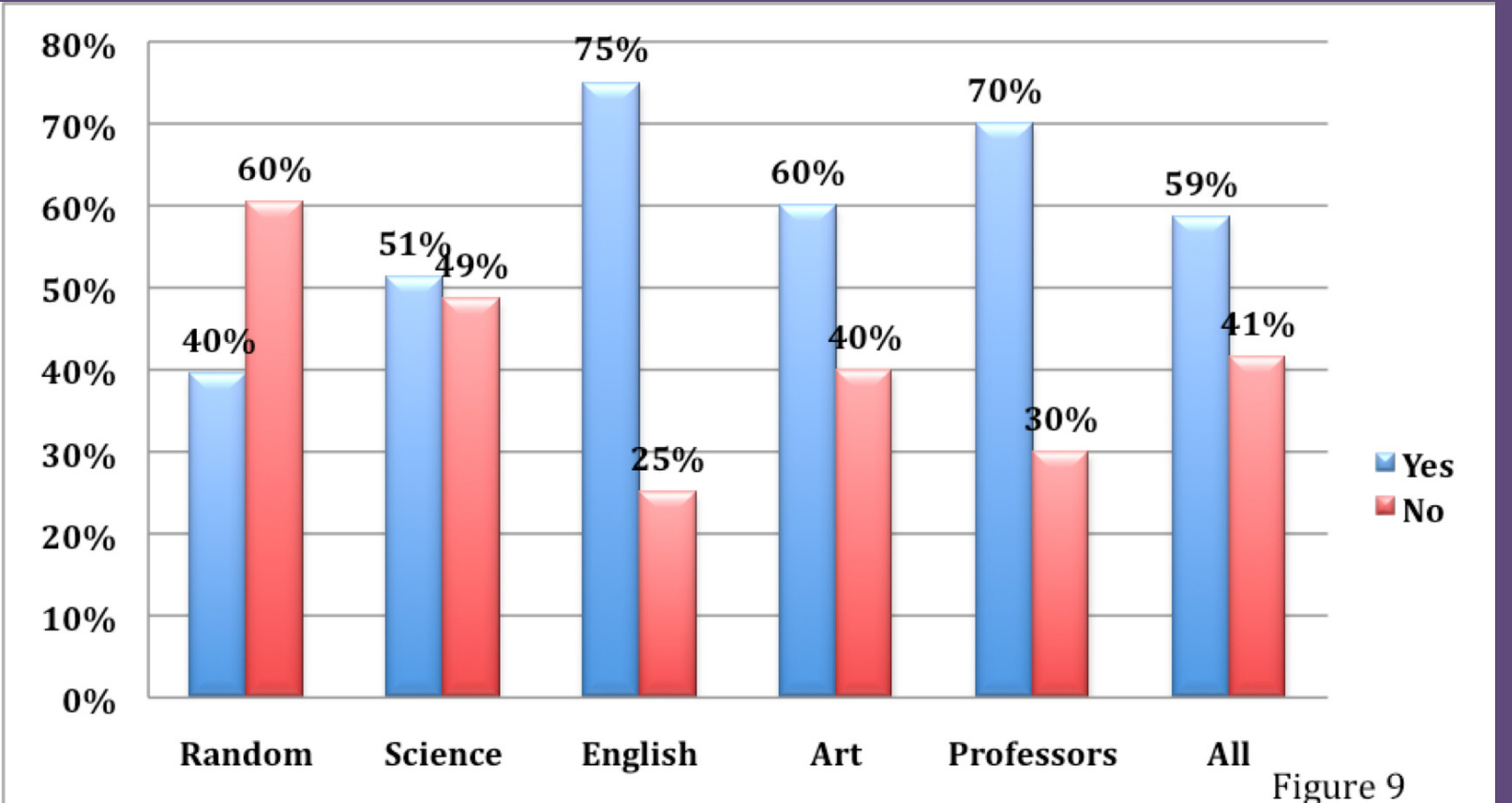


Figure 9

(Not Frustrated) 1 - 5 (Very Frustrated)

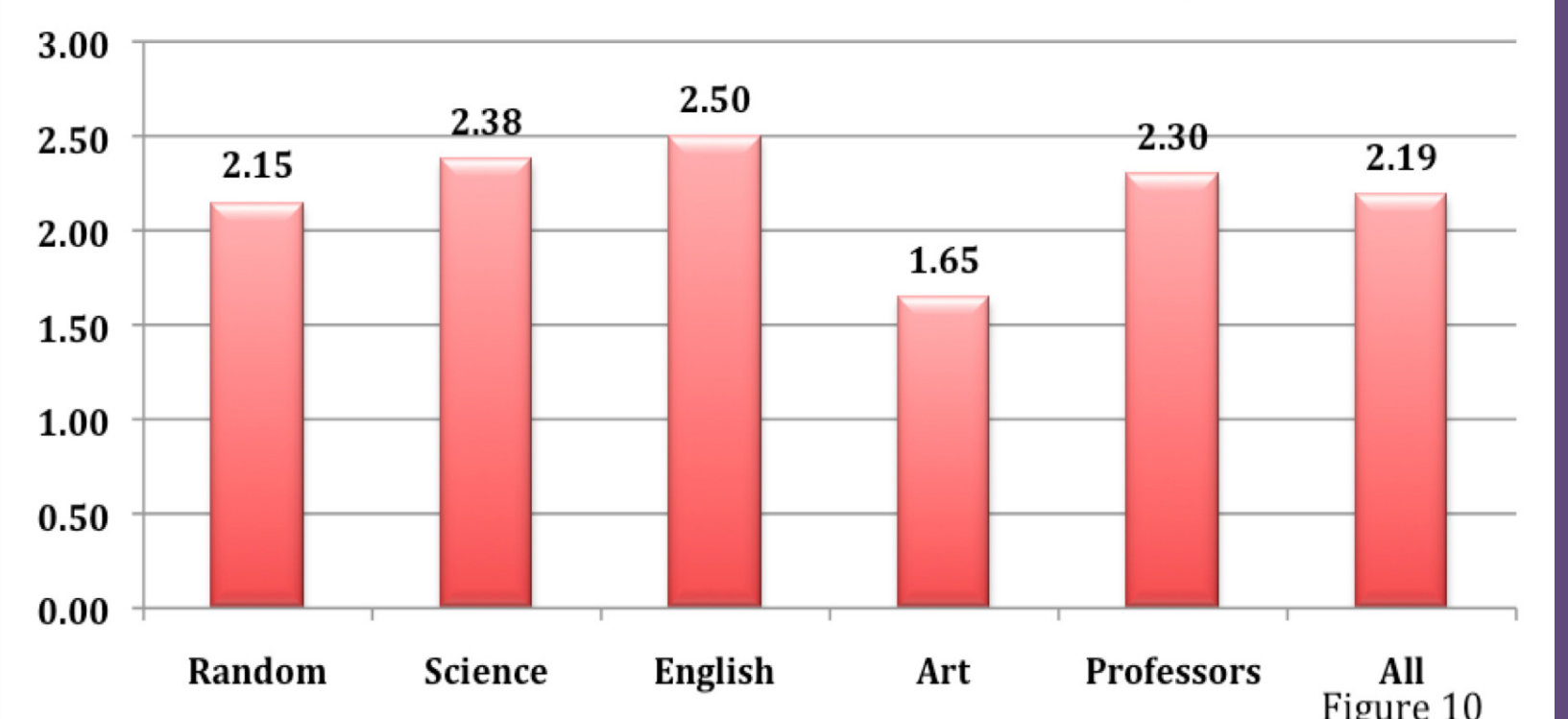


Figure 10

What Is Your Frustration Level When Asked To Be Creative?

The rankings for this question were significantly low for being on a scale of 1 to 5. The lowest score came from Art (1.65) while the highest came from science and English (2.38 and 2.5 respectively). This is expected considering the previous self-reports analyzed. With an overall average of 2.19, we can infer that most SFASU students are not very frustrated when asked to be creative. In light of this information, the responses to the next question are very interesting.

As seen, many of the people we surveyed saw their creativity level as above average. What does this say about standards? It says that we can, that we have the potential, to rise above them! With gifts and talents, though, many subjects saw themselves as average. This tells us that, even though we believe ourselves capable of rising above standards set upon us, we are not always capable of seeing the value or potential of our own abilities. Standards have the tendency to box people into a certain stereotype or label, which is akin to stating that one is not talented simply because one cannot draw. By doing this, we are slowly losing our creative edge. Putting people into a category means that we will only expect so much from them, and we will not be disappointed when they do not achieve beyond that set point. Teachers need to have the power to not only see their student's gifts and talents, but to draw them out and encourage their students to cultivate and build those abilities. Many people grow up believing that they have no gift or talent worth honing. We as teachers must see that they do possess gifts and talents, and help them achieve their full potential within that area.

Our group opinion of standardization tends toward the idea that standards are not good for creativity simply because they are misused. Most teachers today rely on standards to run their entire classroom; from day-to-day lessons to homework, state standardization tests run the show.